DOCUMENT RESUME

ED 400 999 PS 024 713

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TITLE Constructivism, Collaboration and the Certificate of Teaching and Learning (CTL).
PUB DATE Apr 96
NOTE 13p.; Paper presented at the International Conference of the Association for Childhood Education (Minneapolis, MN, April 10-13, 1996).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Action Research; Constructivism (Learning); Discourse Analysis; Elementary Secondary Education; Ethics; Foreign Countries; Journal Writing; *Learning Theories; Mentors; *Professional Development; Reflective Teaching; Social Influences; Student Role; Teacher Attitudes; Teacher Collaboration; Teacher Improvement; *Teacher Role; Teacher Student Relationship
IDENTIFIERS Australia; *Certificate of Teaching and Learning (Australia)

ABSTRACT

This paper describes a professional development program for teachers. The Certificate of Teaching and Learning (CTL), developed in Australia for Kindergarten through Year 12 teachers across all subject areas. It outlines the process of conceptualization, the dilemmas faced by the development team, and the final implementation across Australia. Action research, critical reflection, and self-assessment are central to the CTL philosophy. Participants design their own program of study with learning partners or mentors, select an assessor, and negotiate details of their learning assessment. The compulsory core unit provides a framework for the course, and instruments to assist participants in observation methods, discourse analysis, and action research. Two additional compulsory units, "The Learning Continuum" and "Student and Teacher Roles and Relationships," address learning models and theories, classroom ethics, and the role of relationships in teaching. Participants select an additional two optional units. Each unit includes course work and action research. The CTL was developed by a group of teachers, academics, and education consultants. Emerging from discussions with academics came the foci on the role of teacher as facilitator and collaborator engaged in action research, the emphasis on self-reflection using a CTL journal, and the consideration of participants' learning styles. Various methods used to implement the CTL are described, including distribution by the New South Wales Department of School Education to its 40 districts and possible inclusion in a Master's degree program. (Contains 34 references.) (KDFB)

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CONSTRUCTIVISM, COLLABORATION AND THE CERTIFICATE OF TEACHING AND LEARNING (CTL)

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This paper describes an innovative teacher professional development program, The Certificate of Teaching and Learning, (CTL) developed in Australia by the New South Wales Department of School Education. It outlines the long process of conceptualisation, the dilemmas faced by the team, and final implementation across the state.

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The Program

What is CTL?

The Certificate of Teaching and Learning is a professional development program which deals with the essential stuff of teaching and the nature (and nurturing) of learning. It is not directly linked to any specific content area but examines instead the whole panorama of research into teaching and learning. It examines models of learning, learning theories and current philosophical and sociological debates as well as offering opportunities to participate in action research and apply the theory to practice in classroom situations. It includes tools and practical classroom applications which are aimed specifically at making a difference to student learning outcomes. It promotes teaching as a valued profession.

Action research, critical reflection and self-assessment are integral to the philosophy of CTL.

Who is it for?

The Certificate of Teaching and Learning is a professional development program for all teachers Kindergarten to Year 12 and across all subject areas. It is designed for 'good teachers who want to be better'. That is to say it is not meant to be some kind of remedial program, nor is it designed for neophyte teachers. Its audience is teachers who are comfortable in the classroom and who are ready to accept a new challenge which may or may not lead to further tertiary qualifications. For although accreditation has been negotiated at a number of universities many teachers undertake CTL for their own personal and professional satisfaction rather than for academic qualifications.

What's different about it?

Unlike traditional teacher development courses CTL has no leader's notes and participant's workbook, no workshops or lectures, no essays to be handed in and no fixed time frame. It is a new concept in teacher development based on a philosophy of 'trust the learner'. It requires people to work with learning partners (or in learning networks) in their own or neighbouring schools and encourages the use of technology to work with colleagues isolated by distance or circumstance. It requires that participants also choose and work with a mentor - someone who knows more than they do about the focus of their intended research.

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Participants build their own program of study out of the materials provided and choose their own assessor, deciding when it is time to be assessed. In essence the learner takes full responsibility for the learning, which gives the program an internal consistency in that it models the practices that its content espouses for the classroom.

The flexibility of CTL

The Certificate of Teaching and Learning is based on the assumption that good teachers have always sought to improve their teaching practice, content knowledge and professional understanding. However, although they may have had the support of colleagues they have not always had access to wider professional networks or been in a position to commit themselves to university courses. The Certificate of Teaching and Learning allows any teacher access to materials and resources anywhere in the state: at home, at school, at the library or community centre. Teachers can access the materials in their own time, progress at their own pace and work with friends and colleagues from their own school or across schools and districts.

Program Overview and Assessment Procedures

Program structure

The program consists of a compulsory core unit providing a framework for the whole course, and some tools or instruments to assist participants in observing students and colleagues, analysing classroom discourse, examining beliefs and values and in carrying out action research projects.

A further two compulsory units examine learning and teaching; three optional units are offered of which participants choose two. Each compulsory and optional unit is made up of both course work and action research. The optional units are: *The Classroom and School Within the Wider Social Context; Assessment, Evaluation and Reporting* and *Language and Learning: Making the Links* which is an interactive multi-media program on CDROM.

Participants are also able to claim prior learning to replace one of the units if they can demonstrate the stated outcomes of that unit.

Participant choices

Each unit of CTL contains enough material to be the equivalent of a traditional teacher development course. However the participant is not expected to read and do everything but instead builds a tailor-made unit. To give real choices all the journal articles referred to have been provided and books and videos referred to are made available locally for borrowing. Participants work through as much of the material as they need to in order to support their own learning, their partner's work and their action research. When the participant is ready to demonstrate that the outcomes have been achieved then the unit is finished.

Content overview

The content is at times confronting and controversial. Compulsory Unit One *The Learning Continuum* deals with learning models and theories of learning. Participants are presented with a whole range and invited to examine them, discuss them and form their own opinions.

Similarly Compulsory Unit Two *Student and Teacher Roles and Relationships* offers a range of views. It contains a whole section which challenges metaphors

for teachers, schools, students and education and invites the construction of a new metaphor. It views teaching as a moral act and looks at the ethics of classrooms and the role of relationships in teaching.

The optional units provide a wealth of material dealing with current issues from a range of perspectives. Again participants are invited to explore different points of view and are faced with intriguing questions which challenge beliefs and beg debate. In the process of this debate participants clarify and articulate their own position, appreciate the positions of others and make informed decisions about what changes, if any, they will make to their practice.

Assessment
Participants choose their assessor. This might be the school principal, the principal of another school, a member of the school executive, a member of the District Office staff or another CTL participant. Together they negotiate the details of how assessment will take place and what will be assessed.

Participants demonstrate their learning to an audience, but how they demonstrate and to whom is all negotiable. It might take the form of inviting the assessor into the classroom, it might be by getting an article published in a journal, or it might be making, with students, a multi-media presentation to colleagues or a community group. What is important is that the assessor is able to verify that the negotiated learning outcomes have been achieved.

The CTL Development Process
In the Beginning
In the beginning there were some vague ideas about 'trusting the learner' and about moving away from one-size-fits-all training programs for teachers. We spent six months or more meeting, talking, listening to invited speakers, reading and arguing before we put pen to paper. And even then we only produced a tentative outline of content and some underlying principles. Looking back we wonder why it took us so long! But then all previous courses we had produced had been expert led within a fixed structure, with timed activities, homework and specified content, for example: discussion (15 mins) orientation (10 mins); input (15 mins); activity (20 mins) and so on. It took a great deal of talking to break out of the mould even though we all agreed that we wanted to. It was also extremely difficult for writers to work without the usual framework. Especially when we ourselves had no clear notion of what we were asking for in its place.

We all had ideas of what should be a part of CTL. We all held with passion different bits of the picture, we had incorporated them into other training and development programs, had presented conference papers and written journal articles out of particular philosophical positions. What we did not have and hoped to gain out of our meetings was an agreement about and a crystallisation of the important issues, an order in the chaos of our collective knowledge and life experiences, some kind of knitting together of our woolly thoughts into a total professional development program. This required that we at least had agreement on a philosophical base and some principles of learning (and living).

Who's 'we'? 'We' was a group of teachers, academics and education consultants representing the NSW Department of School Education's State Office Directorates and Regional Offices. There were people working in the

areas of special education, quality assurance, curriculum, information technology and training and development, bringing together a wide range of views on what teachers needed to learn, what constitutes training, and what learning should be mandated and what left to chance. In our two and a half year long journey together we eventually arrived at a place where these issues could no longer be stated in these terms. Now we would say that teachers (like anyone else) should be able to decide what they need to learn, training can take many forms and should be flexible enough to meet individual needs, and learning cannot be dictated or controlled by course writers or lecturers. However, we did not arrive at that place easily, and in the end we realised that it was a journey such as ours that we really wanted other teachers to be able to take. We would never be able to *give* to anyone the journey we had taken and the places we had discovered.

Guides for the journey

Our journey was guided by conversations with many people. These conversations took the form of meetings (sometimes over several days) where we spent time together listening, thinking and discussing. Or sometimes the conversations were internal dialogues with the writers of articles and books that challenged our thinking or else gave language to our gut feelings about how learning and teaching operate and the principles we live by but don't usually articulate.

This does not mean however that we all came to agree on the relative merits of various pieces of research, or the theories and opinions of various writers. What it does mean is that we learnt to tolerate differences and to include, rather than attempt to exclude from the slowly evolving CTL, those voices that did not accord with our own. In this way we would eventually be able to invite our readers (the CTL participants) to participate in the same struggle with ideas that we had been through ourselves. Anything less would have been a contradiction of the underlying philosophy of CTL. But such observations are only obvious in retrospect. As it was we introduced each other to the people and ideas we wanted to become part of CTL ready to fight battles for them.

One of our guides was Richard Bawden from the University of Western Sydney (Hawkesbury) who challenged our view of reality and our 'ways of knowing', broadening the debate from *scientia* 'Learning for Knowing' and *techne* 'Learning for Doing' to include *praxis* 'Learning for Being' (Bawden, 1988). From praxis flowed the idea of teacher as facilitator and collaborator engaged in action research to address local issues out of which would come change. This encounter confirmed our notion of an action research component of CTL. It also confirmed constructivism as the philosophical base for the program.

Bawden discussed the concept of double loop learning or 'learning about learning about things which he called the 'key to successful practice-through-reflection.' The importance of reflection led us to readings on journalling as a tool for reflection (Street, 1988) and eventually to the agreed necessity of a CTL journal.

This does not mean that no one had suggested a journal or for that matter action research before meeting Bawden or reading Street but the process we went through during meetings and discussions made their inclusion a joint decision. This was the same for much of CTL. Individually we came together

with wonderful ideas just waiting for a forum. Through discussion they became collective ideas

Another such guide was John Sweller from the University of New South Wales. He presented us with cognitive theories based on his research (eg Sweller, 1990). This led us to explore other writings on research into cognitive processes and then research into the way the brain works. We later read the work of Howard Gardner (1983) on multiple intelligencies, Cain and Cain (1994) and Sylwester (1993) on brain based learning and we listened to and debated with Julia Atkin about theories of left brain and right brain.

These writers and speakers prompted us to consider the learning styles of our participants and theories of learning based on what is known about the way the brain works. The different and equally strong views of group members concerning this body of work emphasised the fact that our eventual participants would also have different and strongly held points of view. This in turn reinforced our determination to invite investigation, discussion and reflection and to provide resources for participants rather than to attempt to tell people what to think.

Content

The Core

But we did want to provide some tools to support investigation. Again we all brought different things. I for example had just completed a research project observing good teachers of literacy (K - Yr3) for a period of nearly a year. In that time I had learnt a great deal about observation, its ethics as well as its skills and frameworks. I was keen to include a framework to support teachers in negotiating with colleagues the privilege of observing in each other's classrooms. I was also keen on assisting teachers analyse the discourse of the classroom which had been another feature of my previous research. Jan Wright of Wollongong University was enormously helpful on this, and the work of Lemke (1985) and Perrott (1988) provided further insights and resources.

Further we all agreed that there should be readings and support materials to help establish and maintain action research projects (Henry & Kemmis, 1985; Kemmis & McTaggart, 1988; Wadsworth, 1991). Others wanted to include instruments to allow participants to examine their own values. I and others thought teachers' own stories were important as tools for examining underlying assumptions about teaching, teachers and classroom life (Jalongo, 1992; Butt et al, 1990; Butt, 1991).

With these tools we hoped to assist teachers in analysing their own teaching and the learning environment they were creating for students. On the basis of this knowledge we invited teachers to make decisions about what, if anything, they wanted to change.

To assist in the uncovering of taken-for-granted values and attitudes we included an episode from the television series *Teachers of the World* (SBS, 1993). The series showcases excellent classroom practitioners from around the world and unconsciously highlights differences in teaching practices which both reflect and nurture cultural and social practices and attitudes valued by the various communities. The chosen episode shows a Japanese teacher and his primary school class. The Japanese cultural context, parts of which are

obviously different from our own, is used to help throw into relief the familiar, and therefore often transparent, *Australian-ness* of our own classrooms. Again the purpose is to provide ways of analysing and understanding what is happening in the classroom, what social norms, attitudes and values are being conveyed, and what is left out as part of classroom life that perhaps should be included.

These observation, discourse analysis, action research and values tools were included to assist in the examination of the classroom context. Other resources were included which would assist in defining and analysing the curriculum provided by the teacher so that choices could be made about curriculum change. Two books were provided for this purpose. Boomer et al (1992) offer a curriculum process which is based on planning and negotiating with students. This planning process is supported with a proposed learning process and both learning process and curriculum negotiation are illustrated with case studies. Shirley Grundy who, in the course of several telephone calls, gave us excellent advice, examines curriculum as product through Habermas' framework of 'technical, practical and emancipatory interests'. This leads Grundy (1991) to an exploration of teachers as curriculum makers, with many school and teacher examples.

The Learning Continuum and Teacher/Student Roles and Relationships (2 Compulsory Units)

The teaching and learning compulsory units have been mentioned already. Here one of our dilemmas was separating*teaching* from *learning*. They really should not have been dealt with separately however together they constituted practically a wheelbarrow full of materials, which was far too much for one unit of what was a four or five unit course. Reluctantly the decision was made to treat them separately.

Another debate raged around the use of the term 'compulsory' and how consistent we were being if we allowed some things to be compulsory after acknowledging that learning can never be dictated by someone else and that people should be able to decide what they need to know. The final decision was the outcome of debate between those who wanted more structure around the whole CTL program and those who wanted either very little or no structure at all. The rationale for the agreed structure was that the Core and Compulsory Units provided the essential teaching and learning foundation for the Optional Units. Hence the concession was that if a participant could already demonstrate the outcomes of one of the units then prior learning could be claimed. The decision was made. This decision and the process by which it was arrived at were indicative of the creative tension in the group. The need to propose solutions and then to debate them and convince such a diverse group guaranteed a stronger final product.

Assessment, Evaluation and Reporting

The *Assessment, Evaluation and Reporting* unit, like the other CTL units, takes a broad view. A number of paradigms are explored from psychometrics and measurement-based assessment to student self-assessment and naturalistic inquiry. However, before embarking on this phase of the journey participants are asked to explore their current beliefs and practices. They are guided

through an examination of the range of strategies they use with their own students and the range used throughout the school. Participants are then asked to reflect on the learning theories implied in the various assessment strategies, the range of models and methods that coexist and the underlying concerns and purposes they reflect.

One of our guides throughout the writing of this unit was Terry D. Johnson (University of Victoria, B.C. Canada) who visited the writing group and answered our letters and phone calls. Other major influences were Al Mamary (1994) and William Spady (1993) both of whom visited Australia talking about outcomes-based education round about the time we were engaged in constructing CTL. From Britain we drew on the work of Patricia Broadfoot (1987) who also visited Australia and David Reynolds (1992). We of course consulted and provided articles from Australian writers for example, Jan Turbill and Brian Cambourne (1991) who with a group of teachers, had developed an assessment framework which they called *responsive evaluation.*

Some of this search of the literature was an attempt to place the NSW 'assessment regime', which at that time (1994) was considering the implementation of an outcomes and profiles model of assessment, into a global context. It was to give participants the tools and information necessary to define what they were currently doing and make informed decisions about what they wanted to do and why.

The School/Classroom Within the Wider Social Context
This unit picks up the theme of parent and community participation in education and expands it to take in social issues of gender equity, health, the experiences of minority groups, youth unemployment and poverty. All of these impinge on schools and their students and can make a difference to student learning outcomes. Barbara Lepani (1993) explores the 'learning revolution' taking place and leads us into systems thinking as a way of conceptualising the school in its social and cultural context.

Language and Learning: Making the links
The CDROM *Language and Learning: Making the links*, provides an interactive environment incorporating video, audio, graphics, animation and written text. The beauty of the disk is that all of this comes in one small, transportable package complete with over 50 readings, participant's notebook and journal. The disk is arranged into seven areas: *Language Theories; Content Areas; Inclusivity; Cooperative Learning; Technology; Assessment and Critical Literacy*. Each is supported with readings, research suggestions and a review section or self-assessment.

As with the other CTL units support came from prominent writers in the field. Barbara Comber from the University of South Australia, for example, wrote the critical literacy section and worked with us in translating the written word to the ROM environment. Brian Cambourne, Jan Turbill and Di Dal Santo (1993) allowed us to use their article from the *Frameworks* program (Turbill et al, 1993) for our assessment section.

The *Language Theories* section takes teachers through a process of identifying what theories they themselves currently use. At the time of writing this section literacy debates were raging in NSW and groups of people had become

labelled as supporters of either 'whole language' or 'phonics'. At the same time another group was gaining political support for a genre approach to writing and a functional view of language. Functional grammar was being written into the NSW Primary English syllabus. Academics from local universities debated the issues in the press. The literacy community became polarised. Again CTL tried to maintain a focus on the larger issues and lead teachers indirectly to an understanding of how and why the debates had arisen. To assist in this the emphasis was moved from 'literacy' to 'language' which we believed would allow us to look at the area in a broader framework. And as with other CTL units we included articles from all sides of the debates (e.g. Derewianka's work on a functional approach to language (1990) and Cambourne's on whole language (1988).

After exploring language theories participants choose one or more of the remaining topics. *Content Areas* provides a bank of literacy strategies to support students who are experiencing difficulty in reading, writing, speaking and listening. Although these focus on secondary students many are applicable to all age groups. Strategies alone of course are not enough. Making links with the CTL Teaching Unit, the CDROM leads teachers to consider the context into which the strategies are placed and the classroom relationships that are built to sustain them. *Cooperative Learning* draws on the work of Hill and Hill (1993) for a framework for teaching cooperative learning skills. *Inclusivity* addresses the classroom context including a consideration of classroom discourse which is supported by the work of Cazden (1988). This section also includes Delpit's powerful argument for skills-oriented writing instruction (1988) which she says is needed to meet the 'educational needs of Black and poor students on all levels'.

The disk took two years to construct and communications technology changed enormously in that time. The *Technology* section was written last in the hope that it would retain its currency for at least a year! The writing of this section followed the 1995 Australian Reading Association Conference which was held in Sydney and had a major strand covering Technology and Literacy. We were therefore able to enlist the expertise of Lankshear and Knobel (1995) from the Queensland University of Technology who were keynote speakers at the conference. This section deals with literacy in the information age (Lemke, 1994) and with email and the Internet as new communication media. What these might mean for how we construct and 'read' texts is discussed and multi-media (Rieber, 1994) is explored as the communication environment of today's students. These are cross referenced with the *Critical Literacy* section which can provide tools necessary for interrogating electronic texts, asking questions of the Internet to uncover the silences, track down authorship, and debate the various interests served by the information found. Finally in this section the potential of virtual reality (Laurel, 1993) for learning in classrooms of the future is identified and discussed.

In all sections teachers are asked to consider different perspectives, to reflect critically on the information provided, to debate the issues with colleagues and to plan, implement and evaluate action research in the classroom.

Implementation

Like all good ideas CTL needed sponsors. Not in monetary terms, but in energy and enthusiasm! The development team played their part and introduced CTL

wherever they could. In some places whole schools, once introduced to the materials, took control and devoured the content. The Department's ten regions were given sets of the materials. But we live in a changing world and even the best ideas are subject to such things as industry restructuring and changes in government. The NSW Department of School Education like many others across the world underwent a restructure. The regional framework for the accessing of CTL disappeared overnight, in it's stead 40 districts were created.

Now, eight months later, those who spent three years of their lives deep in the journey that was CTL are finding new ways for teachers to access its riches. Several universities have suggested that it become part of a Masters degree jointly facilitated by the university and the Department of School Education. Members of the development team are assessing their new roles and finding different ways of supporting schools in undertaking CTL. New people in positions of influence within the Department have heard of CTL and are looking at ways of making it available and supporting its implementation. A handful of teachers have graduated from the program and are spreading the word. Perhaps this is a much slower start than we had anticipated but if the material is good enough it will survive.

Conclusion

It seemed to be important to describe some of the struggles behind the materials because to a great extent the content will reflect the process. Looking back CTL was the steepest learning curve of my career and the most exciting and I was not alone in thinking that way. If others can participate in a similar journey CTL will have the potential to achieve a great deal for teachers' and students' lived experiences and for student learning outcomes.

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